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ABSTRACT

A method of forming a self-aligned contact hole suitable for a semiconductor substrate having a pair of gate electrodes. First, a nitride etching stop layer is formed over the gate electrodes and the semiconductor substrate. Then, an oxide insulating layer is formed on the nitride etching stop layer, Next, the oxide insulating layer is plasma-etched by an etching gas containing C_5F_8 and CHF_3 or C_4F_6 and CHF_3 so as to form a self-aligned contact hole between the pair of gate electrode.